



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/625,510	07/25/2000	Fumiaki Kamijo	040405/0323	7595

22428 7590 10/08/2003

FOLEY AND LARDNER
SUITE 500
3000 K STREET NW
WASHINGTON, DC 20007

EXAMINER

GRIER, LAURA A

ART UNIT	PAPER NUMBER
----------	--------------

2644

10

DATE MAILED: 10/08/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/625,510

Applicant(s)

KAMIJO, FUMIAKI

Examiner

Elizabeth A McChesney

Art Unit

2644

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 9 . 6) ☐ Other: _____

DETAILED ACTION

1. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. **Claims 1 and 9** rejected under 35 U.S.C. 102(b) as being anticipated by Odlen et al.

Regarding **claim 1 and 9**, Odlen discloses a control for audio receiver. Odlen's disclosure teaches controlling function of a various audio devices. Odlen et al. disclose a digital memory registers and other memory (ROM and RAM) for storing information and functions levels for various radio receiver functions including volume and other audio effects. The information is stored in regards to the various audio facets such as whether the audio is AM, FM, tape or phonograph type. As well, Odlen discloses a control means which may including a microprocessor or a CPU for accessing the information from the memory for adjustment either manually or automatically, wherein the adjustments includes a change in volume, accordingly as needed based on the selected audio information received from memory, further the CPU and other functions in respect to changes of the audio parameter, and the memories of Odlen functions based a routine program stored therein, which is indicative of applicable software (col. 1, 40-68 – col. 2, lines 1-7; col. 3, lines 64-68 – col. 4, lines 1-5, 28-46, col. 6, lines 16-43, and

figures 8-14.), which is indicative of audio information (volume information) for individual applications.

4. **Claims 2 and 10** are rejected under 35 U.S.C. 103(a) as being unpatentable over the Odlen in view of Hetherington.

Regarding **claims 2 and 10**, Odlen discloses everything claimed as applied above (see claims 1 and 9, respectively). However, Odlen fails to specifically disclose a sound volume adjustment coefficient. The examiner maintains that such a coefficient was well known in the art.

Regarding the sound volume adjustment coefficient, in a similar field of endeavor, Hetherington disclose an apparatus and method for smooth audio scaling in a computer system. Hetherington's disclosure includes a DSP including a memory wherein algorithm is provide for determining logarithmic values that are used as multipliers to adjust the change in volume of the audio data samples (col. 1, lines 50-68 and col. 2, lines 1-10, and col. 4, lines 42-64), which constitutes a coefficient.

It would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the invention of Odlen by providing a logarithmic values (coefficients) as taught by Hetherington for the purpose of scaling and increasing, decreasing or adjusting the volume as desired.

5. **Claims 3 and 11** are rejected under 35 U.S.C. 103(a) as being unpatentable over Odlen.

Regarding **claims 3 and 11**, Odlen discloses everything claimed as applied above (see claims 1 and 9, respectively). However, Odlen fails to specifically disclose the adjusting the volume to an equivalent level as that of the operating system. Adjusting the incoming volume of an audio application to equal that of the system in which the audio application is to used is a common technique used in the art of optimizing the volume control of a personal computer system. Thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Odlen by implementing a such a common volume adjustment technique for enhancing and maintaining the volume control as desired of a computer system used for reproducing audio, wherein the volume level parallel to the capabilities of the computer system.

6. **Claims 4 and 12** are rejected under 35 U.S.C. 103(a) as being unpatentable over Odlen in view of Hetherington.

Regarding **claims 4 and 12**, Odlen discloses everything claimed as applied above (see claims 1 and 9, respectively). However, Odlen fails to specifically disclose a sound volume adjustment coefficient. The examiner maintains that such a coefficient was well known in the art.

Regarding the sound volume adjustment coefficient, in a similar field of endeavor, Hetherington disclose an apparatus and method for smooth audio scaling in a computer system. Hetherington's disclosure includes a DSP including a memory wherein algorithm is provide for determining logarithmic values that are used as multipliers to adjust the change in volume of the audio data samples (col. 1, lines 50-68 and col. 2, lines 1-10 and col. 4, lines 42-64), which constitutes a coefficient.

It would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the invention of Odlen by providing a logarithmic values (coefficients) as taught by Hetherington for the purpose of scaling and increasing, decreasing or adjusting the volume as desired.

However, Odlen and Hetherington fail to specifically disclose the adjusting the volume to an equivalent level as that of the operating system. Adjusting the incoming volume of an audio application to equal that of the system in which the audio application is to be used is a common technique used in the art of optimizing the volume control of a personal computer system. Thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Odlen by implementing a such a common volume adjustment technique for enhancing and maintaining the volume control as desired of a computer system used for reproducing audio, wherein the volume level parallel to the capabilities of the computer system.

7. **Claims 5 and 13** are rejected under 35 U.S.C. 103(a) as being unpatentable over the Odlen.

Regarding **claims 5 and 13**, Odlen discloses everything claimed as applied above (see claims 1 and 9, respectively). Odlen et al. further discloses a display means for the changes the volume level as being adjusted to a desired level (col. 1, lines 54-68 and col. 2, lines 1-7).

It would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the invention of Odlen by incorporating a display means for the purpose of enabling an operator to visualize and as well hear the changes in the volume level as they occur.

8. **Claims 6 and 14** are rejected under 35 U.S.C. 103(a) as being unpatentable over Odlen in view of Hetherington.

Regarding **claims 6 and 14**, Odlen discloses everything claimed as applied above (see claims 1 and 9, respectively). Odlen et al. further discloses a display means for the changes the volume level as being adjusted to a desired level (col. 1, lines 54-68 and col. 2, lines 1-7). It would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the invention of Odlen by incorporating a display means for the purpose of enabling an operator to visualize and as well hear the changes in the volume level as they occur. However, Odlen fails to specifically disclose a sound volume adjustment coefficient. The examiner maintains that such a coefficient was well known in the art.

Regarding the sound volume adjustment coefficient, in a similar field of endeavor, Hetherington disclose an apparatus and method for smooth audio scaling in a computer system. Hetherington's disclosure includes a DSP including a memory wherein algorithm is provide for determining logarithmic values that are used as multipliers to adjust the change in volume of the audio data samples (col. 1, lines 50-68 and col. 2, lines 1-10 and col. 4, lines 42-64), which constitutes a coefficient.

It would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the invention of Odlen by providing a logarithmic values (coefficients) as taught by Hetherington for the purpose of scaling and increasing, decreasing or adjusting the volume as desired.

9. **Claims 7, 8, 15 and 16** are rejected under 35 U.S.C. 103(a) as being unpatentable over Odlen in view of Hetherington.

Regarding **claims 7, 8, 15 and 16**, Odlen discloses everything claimed as applied above (see claims 1 and 9, respectively). Odlen et al. further discloses a display means for the changes the volume level as being adjusted to a desired level (col. 1, lines 54-68 and col. 2, lines 1-7). It would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the invention of Odlen by incorporating a display means for the purpose of enabling an operator to visualize and as well hear the changes in the volume level as they occur. However, Odlen fails to specifically disclose a sound volume adjustment coefficient. The examiner maintains that such a coefficient was well known in the art.

Regarding the sound volume adjustment coefficient, in a similar field of endeavor, Hetherington disclose an apparatus and method for smooth audio scaling in a computer system. Hetherington's disclosure includes a DSP including a memory wherein algorithm is provide for determining logarithmic values that are used as multipliers to adjust the change in volume of the audio data samples (col. 1, lines 50-68 and col. 2, lines 1-10 and col. 4, lines 42-64), which constitutes a coefficient.

It would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the invention of Odlen by providing a logarithmic values (coefficients) as taught by Hetherington for the purpose of scaling and increasing, decreasing or adjusting the volume as desired.

However, Odlen and Hetherington fail to specifically disclose the adjusting the volume to an equivalent level as that of the operating system. Adjusting the incoming volume of an audio application to equal that of the system in which the audio application is to use is a common technique used in the art of optimizing the volume control of a personal computer system. Thus

it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Odlen by implementing a such a common volume adjustment technique for enhancing and maintaining the volume control as desired of a computer system used for reproducing audio, wherein the volume level parallel to the capabilities of the computer system.

10. **Claim 17** is rejected under 35 U.S.C. 103(a) as being unpatentable over Odlen et al.

Regarding **claim 17**, Odlen discloses a control for audio receiver. Odlen's disclosure teaches controlling function of a various audio devices. Odlen et al. disclose a digital memory registers and other memory (ROM and RAM) for storing information and functions levels for various radio receiver functions including volume and other audio effects. The information is stored in regards to the various audio facets such as whether the audio is AM, FM, tape or phonograph type. As well, Odlen discloses a control means which may including a microprocessor or a CPU for accessing the information from the memory for adjustment either manually or automatically, wherein the adjustments includes a change in volume, accordingly as needed based on the selected audio information received from memory, further the CPU and other functions in respect to changes of the audio parameter, and the memories of Odlen functions based a routine program stored therein, which is indicative of applicable software (col. 1, 40-68 – col. 2, lines 1-7; col. 3, lines 64-68 – col. 4, lines 1-5, 28-46, col. 6, lines 16-43, and figures 8-14.), which is indicative of audio information (volume information) for individual applications.

10. **Claim 18** is rejected under 35 U.S.C. 103(a) as being unpatentable over Odlen in view of Hetherington.

Regarding **claim 18**, Odlen discloses everything claimed as applied above (see claim 17). However, Odlen fails to specifically disclose a sound volume adjustment coefficient. The examiner maintains that such a coefficient was well known in the art.

Regarding the sound volume adjustment coefficient, in a similar field of endeavor, Hetherington disclose an apparatus and method for smooth audio scaling in a computer system. Hetherington's disclosure includes a DSP including a memory wherein algorithm is provide for determining logarithmic values that are used as multipliers to adjust the change in volume of the audio data samples (col. 1, lines 50-68 and col. 2, lines 1-10 and col. 4, lines 42-64), which constitutes a coefficient.

It would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the invention of Odlen by providing a logarithmic values (coefficients) as taught by Hetherington for the purpose of scaling and increasing, decreasing or adjusting the volume as desired.

11. **Claim 19** is rejected under 35 U.S.C. 103(a) as being unpatentable over Odlen.

Regarding **claim 19**, Odlen discloses everything claimed as applied above (see claim 17). However, Odlen fails to specifically disclose the adjusting the volume to an equivalent level as that of the operating system. Adjusting the incoming volume of an audio application to equal that of the system in which the audio application is to be used is a common technique used in the art of optimizing the volume control of a personal computer system. Thus it would have been

Art Unit: 2644

obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Odlen by implementing a such a common volume adjustment technique for enhancing and maintaining the volume control as desired of a computer system used for reproducing audio, wherein the volume level parallel to the capabilities of the computer system.

12. **Claim 20** is rejected under 35 U.S.C. 103(a) as being unpatentable over Odlen in view of Hetherington.

Regarding **claim 20**, Odlen discloses everything claimed as applied above (see claim 17). However, Odlen fails to specifically disclose a sound volume adjustment coefficient. The examiner maintains that such a coefficient was well known in the art.

Regarding the sound volume adjustment coefficient, in a similar field of endeavor, Hetherington disclose an apparatus and method for smooth audio scaling in a computer system. Hetherington's disclosure includes a DSP including a memory wherein algorithm is provide for determining logarithmic values that are used as multipliers to adjust the change in volume of the audio data samples (col. 1, lines 50-68 and col. 2, lines 1-10 and col. 4, lines 42-64), which constitutes a coefficient.

It would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the invention of Odlen by providing a logarithmic values (coefficients) as taught by Hetherington for the purpose of scaling and increasing, decreasing or adjusting the volume as desired.

However, Odlen and Hetherington fail to specifically disclose the adjusting the volume to an equivalent level as that of the operating system. Adjusting the incoming volume of an audio

application to equal that of the system in which the audio application is to be used is a common technique used in the art of optimizing the volume control of a personal computer system. Thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Odlen by implementing a such a common volume adjustment technique for enhancing and maintaining the volume control as desired of a computer system used for reproducing audio, wherein the volume level parallel to the capabilities of the computer system.

Regarding **claim 21**, Odlen discloses everything claimed as applied above (see claim 17). Odlen et al. further discloses a means for the changes the volume level as being adjusted to a desired level (col. 1, lines 54-68 and col. 2, lines 1-7).

13. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Odlen in view of Hetherington.

Regarding **claim 22**, Odlen discloses everything claimed as applied above (see claim 17). Odlen et al. further discloses a means for the changes the volume level as being adjusted to a desired level (col. 1, lines 54-68 and col. 2, lines 1-7). However, Odlen fails to specifically disclose a sound volume adjustment coefficient. The examiner maintains that such a coefficient was well known in the art.

Regarding the sound volume adjustment coefficient, in a similar field of endeavor, Hetherington disclose an apparatus and method for smooth audio scaling in a computer system. Hetherington's disclosure includes a DSP including a memory wherein algorithm is provide for determining logarithmic values that are used as multipliers to adjust the change in volume of the

audio data samples (col. 1, lines 50-68 and col. 2, lines 1-10 and col. 4, lines 42-64), which constitutes a coefficient.

It would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the invention of Odlen by providing a logarithmic values (coefficients) as taught by Hetherington for the purpose of scaling and increasing, decreasing or adjusting the volume as desired.

14. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Odlen in view of Hetherington.

Regarding **claim 23**, Odlen discloses everything claimed as applied above (see claim 17). Odlen et al. further discloses a means for the changes the volume level as being adjusted to a desired level (col. 1, lines 54-68 and col. 2, lines 1-7). However, Odlen fails to specifically disclose a sound volume adjustment coefficient. The examiner maintains that such a coefficient was well known in the art.

Regarding the sound volume adjustment coefficient, in a similar field of endeavor, Hetherington disclose an apparatus and method for smooth audio scaling in a computer system. Hetherington's disclosure includes a DSP including a memory wherein algorithm is provide for determining logarithmic values that are used as multipliers to adjust the change in volume of the audio data samples (col. 1, lines 50-68 and col. 2, lines 1-10 and col. 4, lines 42-64), which constitutes a coefficient.

It would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the invention of Odlen by providing a logarithmic values (coefficients) as

taught by Hetherington for the purpose of scaling and increasing, decreasing or adjusting the volume as desired.

However, Odlen and Hetherington fail to specifically disclose the adjusting the volume to an equivalent level as that of the operating system. Adjusting the incoming volume of an audio application to equal that of the system in which the audio application is to be used is a common technique used in the art of optimizing the volume control. Thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Odlen by implementing a such a common volume adjustment technique for enhancing and maintaining the volume control as desired of a computer system used for reproducing audio, wherein the volume level parallel to the capabilities of the computer system.

Response to Arguments

15. Applicant's arguments with respect to claims 1-23 have been considered but are moot in view of the new ground(s) of rejection.

In respect to the new rejection, the examiner has revised the rejection using Odlen as the primary reference under a 102 (b) rejection of independent claims 1, 9, and 17. And, thus in the arguments submitted by the applicant on 07/03/03, the applicant argued that the prior art of lack sufficient prima facie case of obviousness. Thus, the 103 rejection of that applicant's admitted prior art in view of Odlen has of the independent claims has been removed. To interated the 102 new rejection set forth above, Odlen is now the primary reference of prior art. Further the applicant continues to argue that Odlen fails to disclose the aspects of the invention in respect to the use of software applications for controlling volume of a computer system. In

respect to Odlen, the examiner agrees that Odlen is not a computer system however, the concepts and teachings of Odlen are parallel with the claim limitations, wherein, Odlen system does uses a microprocessor and/or a CPU, and as well, memory which stores a programs for controlling audio functions therein, which is indicative of software applications for volume setting information, and further the controlling aspect of Odlen may be manual or automatic, indicating communication between the memory and the processor (transferring data to an operating system).

Further the applicant argues that preamble of the claim recites “a sound volume adjustment system for a personal computer”, and that the development of personal computers were in their early stages. In respect this argument, the recitation “a sound volume adjustment system for a personal computer” has not been given patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951). And in respect to the latter part of the argument, the creation (the date) of the personal computer is not relevant to the claimed invention.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura A Grier whose telephone number is (703) 306-4819. The examiner can normally be reached on Monday - Friday, 7:30 am - 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Forester W. Isen can be reached on (703) 305-4386.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

Or faxed to:

(703) 872-9314 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.

LAG

October 6, 2003

MINSUN OH HARVEY
PRIMARY EXAMINER